

# THE VERTICAL FARM

RESEARCH CENTRE IN  
SEEHAUSEN  
Germany



# Our Vision!

- Build the first researched center for artificial intelligence Vertical farm in Germany.
- Relying on artificial intelligence to create the vertical farming
- Build a research center who host worldwide vertical farming scientists and talent student.
- Create an environment mixed of science and tourist, hoping Seehausen become as artificial intelligence Vertical farm City in the world





Project initiator & investor:  
Mohammed Alayed

# ABOUT US:



**VARMING GmbH**



Kantstraße 53, 14612 Falkensee, Germany



03322-4222327



info@varming.de



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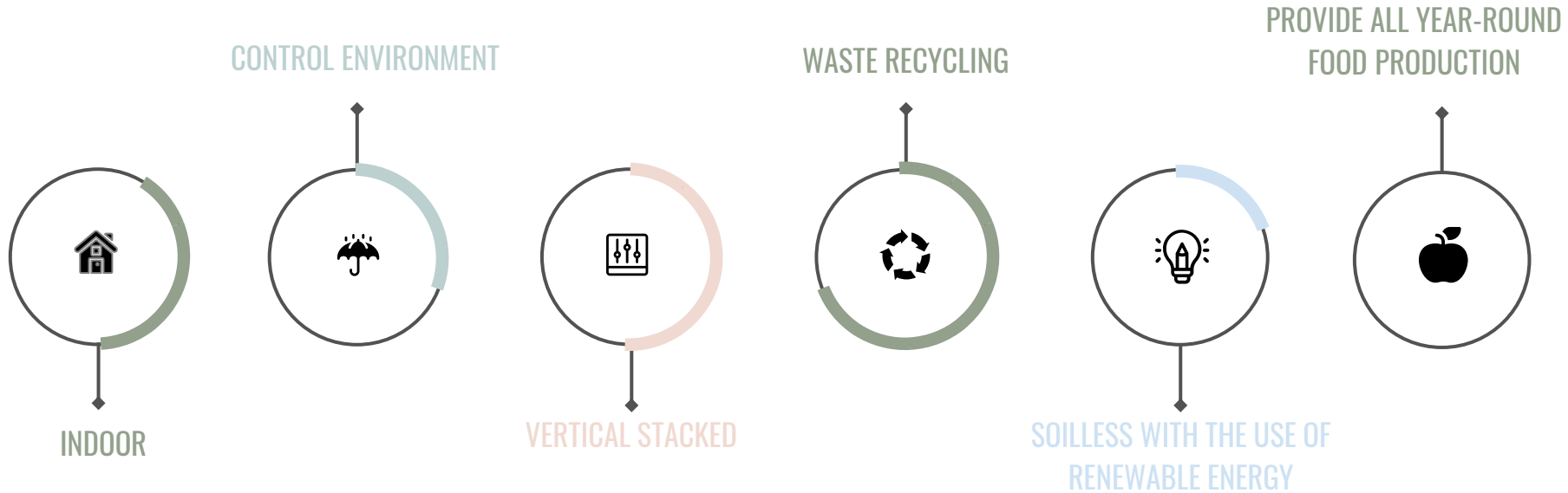
# Vertical Farming

## THE SOLUTION

Vertical farming is a new urban farming system that emphasize on the idea of all year food production non-stop within control growing condition inside buildings in urban city.

it was first proposed by despommier (2011) to have a new agriculture system

## THIS FARMING METHOD CHARACTERISED BY :



# BY USING THIS FARMING METHOD :



1

ELIMINATE COST AND  
CARBON FOOTPRINT FOR  
FOOD TRANSPORTATION



2

IMPROVING FOOD SECURITY



3

PROVIDES BETTER QUALITIES  
OF FARM BY ELIMINATE THE USE  
OF HARMFUL  
CHEMICALS; PESTICIDES; FERTILISER  
THAT USED IN TRADITIONAL  
FARMING



4

IT CAN ACHIEVE  
SUBSTANTIALLY HIGHER YIELD  
WITH USING ONLY 5-10% WATER  
USED AS COMPARE TO  
TRADITIONAL FARMING



5

PRESERVE SOILS  
FROM DEGRADATION



# THE MARKET

From the map we can see that countries with limited arable land such as singapore have adopted vertical farming in a more rapid pace. singapore as of its geographical location, it has limited access to fertile land and clean water.

|          |                    |
|----------|--------------------|
| NAME     | SKY GREENS FARMS   |
| LOCATION | SINGAPORE          |
| HEIGHT   | 9M                 |
| AREA     | 600 M <sup>2</sup> |
| YEAR     | 2009               |
| PRODUCT  | Green vegetables   |



# TECHNOLOGY

## SMART WATER RECYCLING

Smart water recycling system. taking advantage of plant evaporation, is developed to control environment farming to recycle majority of water used. it allows less dependent

## ARTIFICIAL LIGHTING

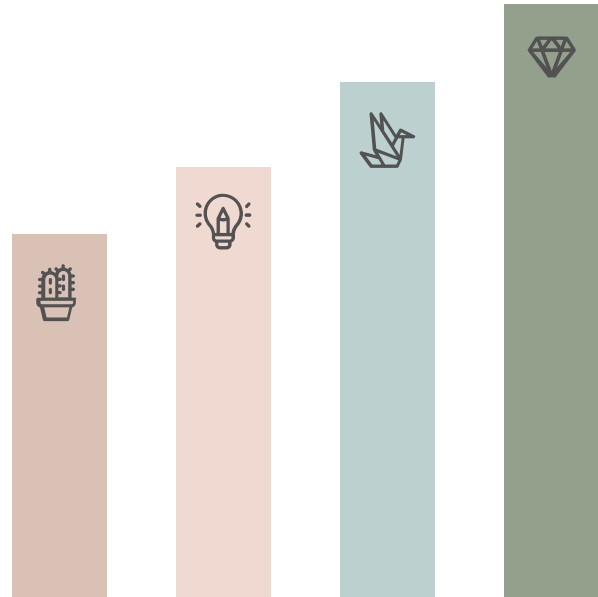
Artificial lighting is the largest energy usage in the system, new type of led specifically designed for indoor farming is developed to make growin more efficient and energy-saving

## HVAC SYSTE

HVAC system to control the composition of carbon dioxide and oxygen and maintaining temperature are also critical for effective plant growth

## RENEWABLE ENERGY

There are solar and wind power as renewable energy





02

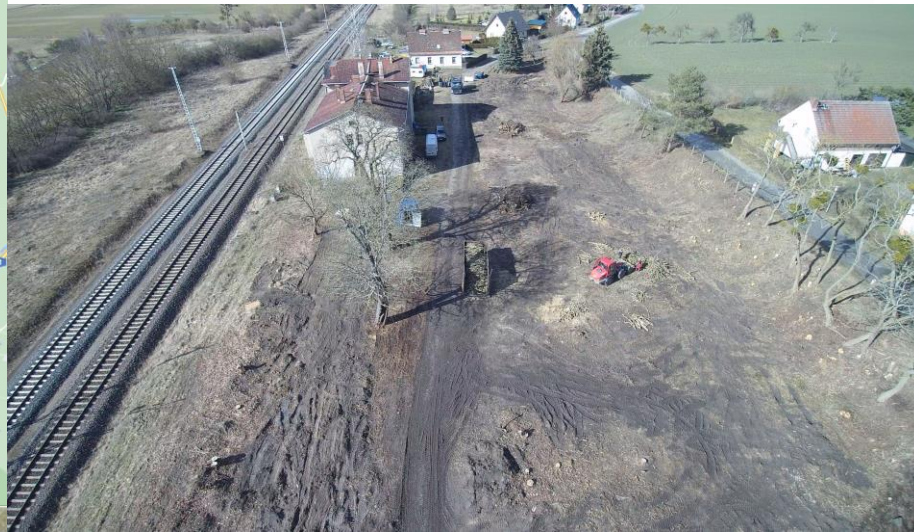
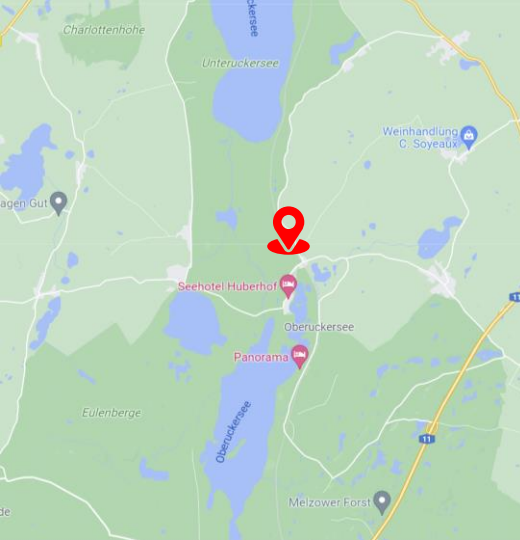
LOCATION OF THE PROJECT

SEEHAUSEN









11 150 m<sup>2</sup>

Former station building with  
outbuildings in 17291 Oberuckersee  
OT Seehausen

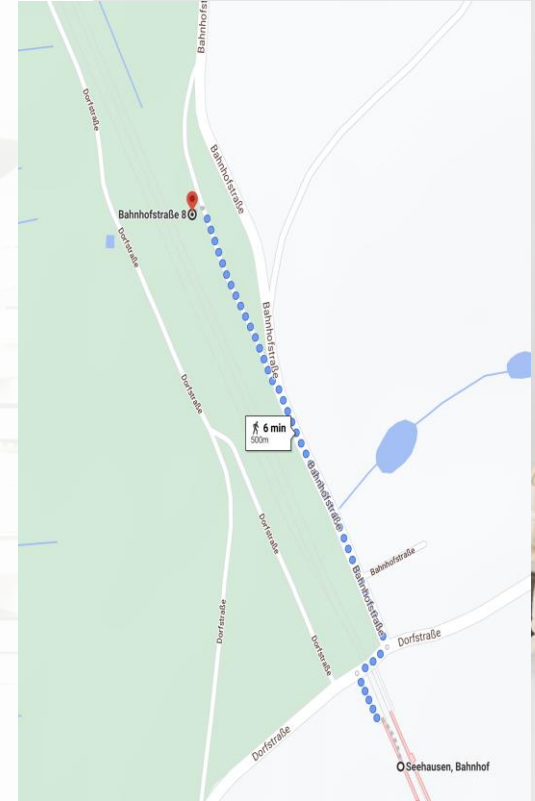


# WHY THE SEEHAUSEN LOCATION?



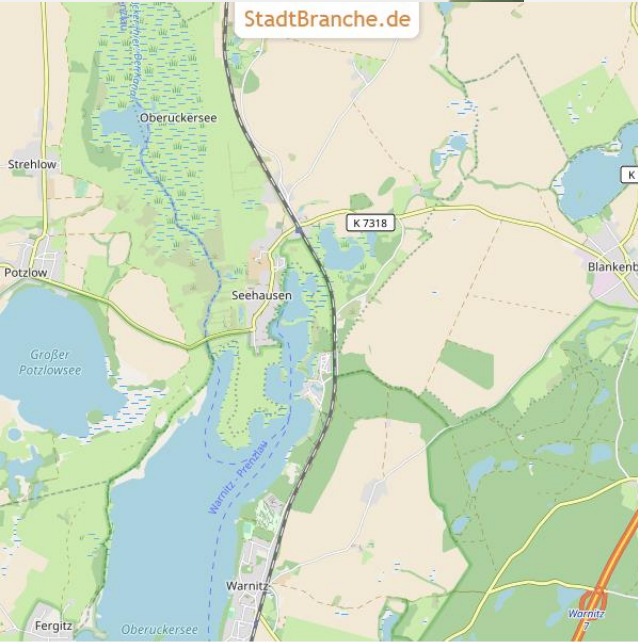
## ✓ By Train

The proximity to bus and train makes it easy for young and old to explore the beautiful surroundings of the Uckermark and to escape the stress of everyday life with a few hours' travel time. ... And who knows, whether one or the other might not find himself spending his next vacation in the serenity of the Uckermark instead of in Tuscany.





# WHY THE SEEHAUSEN LOCATION?



Oberuckersee in Brandenburg

Landkreis Uckermark PLZ: 17291

Openstreetmap & StadtBranche.de



## By Bicycle

With its special environment, Seehausen/Uckermark provides every fan of nature and tranquility with beautiful and amazing corners. As a special station (centre of the Berlin-Usedom cycle path), the interesting stop offers many hospitality offers that can be explored by bike to your heart's content.



03

# PROJECT DESIGN

RESEARCH CENTRE IN SEEHAUSEN



WHAT DO WE WANT  
TO **ACHIEVE?**



## PLANNING

A unique and innovative  
facility is planned



## RESEARCH

Culturally growing diversity  
in the region as an  
opportunity for joint  
international knowledge  
transfer and exchange



## RECREATION

Rest area for the pausing  
cyclists



## FARMING

In addition, the location serves as  
an innovation center for the  
development of modern  
hydroponics by VARMING GmbH.  
The technology required for this  
is being further developed and  
diversified here.





# PROJECT DESIGN

- Hotel and resort for national and international guests
- Vertical Farming and Vertical Farming Technology Research Center
- Holiday homes and apartments for relaxation
- Laboratories and technology containers for students and researchers



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# VARMING HOTEL

- 15 furnished modern apartments
- Relaxation areas with library and fireplace
- Restaurant with products from the VARMING line
- Smart and energy-efficient equipment
- Sauna landscape with relaxation area, Massage beds and relaxation zone, Sports area with fitness equipment



# VARMING STUDIOS

- Attractive and modern apartments for recreation
- Accommodation for regional employees
- Overnight accommodation for scientists and students
- 12 holiday apartments spread over 6 houses with their own natural pools and ponds in each house
- Hardly any holiday resorts within a 20-minute radius.







# VARMING CONTAINER

- Mobility creates freedom
- Isolated scientific unit for the trend of future
- Concept module for vertical farming product portfolio
- Not yet implemented in Germany
- Different forms of container solution possible



# VARMING CAMPING



- Attractive and modern apartments twelve camping houses are available for nature-friendly families
- Equipment at the highest level
- Hotel and Vertical Farm services can be used at the same time
- Charging stations and equipment for cyclists and e-cyclists
- Directly connected playground for children.



# VARMING EVENTS

- Barbecue and fire pit
- playground for children
- Event area with a small stage
- Senior-friendly public area
- VARMING weekly market for all hungry people







Vertical Farming to rebuild our food Systems

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## OUR WEBSITE

[Vertical Farming\\_2022](https://hs-sites.com)  
[\(hs-sites.com\)](https://hs-sites.com)



# THANKS!

Does anyone have any questions?

info@varming.de  
+49 3322-4222327  
www.ayedre.de